REMARKS

The examiner is thanked for the very thorough and professional office action. Pursuant to that office action, claims 7 and 18-20 have been cancelled and claims 1 and 2 amended to more definitely set forth the invention and obviate the rejections. Support for the limitation that the flat plate is formed from polyactic acid can be found in the specification on page 12, line 18. Support for the newly added limitation that the openings are spaced from the conical or pyramidal projections can be found in Figs. 1, 2(a) and (b), 3 and 4. Support for the newly added requirement that the distance between a particular projection and its corresponding opening is smaller than the distance between the particular projection and an opening that does not correspond thereto can be found in the specification on page 9, lines 15-19. Claim 2 has been rewritten in idiomatic English to clarify that the channels are formed on the surface of the flat plate and not on the conical or pyramidal projections. Support for amendment of claim 2 can be found in original claim 2 and in the specification on page 12, lines 3-10. The present amendment is deemed not to include new matter. Claims 1-6 and 8-17 remain in the application.

Reconsideration is respectfully requested of the rejection of claims 1-2, 6 and 14 under 35 U.S.C. 102(b) as being anticipated by WO 2002032480 (hereinafter the '480 reference).

As indicated above, claim 1, the only independent claim in the application, has been amended to more clearly patentably distinguish from the references of record. In particular, claim 1 now requires that the flat plate in the transdermal drug administration device is formed from polyactic acid. The advantage of forming the flat plate from polyactic acid is that there is a higher possibility of safety. For example, if the projections are broken in the body, the broken

parts of the projections disappear in the body because polyactic acid is biodegradable.

In addition, there is a low possibility of an allergic reaction with polyactic acid than with metals or other materials. Further, it is possible to control the intensity of the flat plate by setting only the molecular weight of polyactic acid as a material. Finally, it is easy to manufacture the flat plate having a plurality of openings when using polyactic acid.

Moreover, claim 1 has been amended to patentably distinguish from the prior art of record by requiring that the plurality of openings are spaced from the conical or pyramidal projections. In addition, claim 1 has been amended to require that the distance between a particular projection and its corresponding opening is smaller than the distance between the particular projection and an opening that does not correspond thereto.

It is respectfully submitted that the '480 reference in no way discloses a transdermal drug administration device as now called for in the amended claims herein. In particular, the '480 reference fails to disclose forming the flat plate from a polyactic acid, spacing the openings from the conical or pyramidal projections and providing a distance between a particular projection and its corresponding opening smaller than the distance between the particular projection and an opening that does not correspond thereto. In addition, the channels referred to in the rejection relate to the grooved channels 38 extending along the side walls 40 of the pyramidal microelement 32, and not to a channel formed on the surface of the flat plate between an opening and a pyramidal projection.

It is thus clear that the '480 reference fails to disclose any channels formed on the surface of the flat plate between the openings and their corresponding projections as required by claim 2

herein. It is equally clear that the '480 reference fails to anticipate or render unpatentably obvious the subject matter now called for in the claims herein because there is no disclosure of the structure now required by amended claims 1 and 2.

Consequently, it is respectfully urged that the claims as now amended clearly patentably distinguish from the '480 reference which does not disclose or suggest the features now called for in the claims. For this reason, it is respectfully submitted that the examiner would be justified in no longer maintaining the rejection. Withdrawal of the rejection is accordingly respectfully requested.

Reconsideration is respectfully requested of the rejection of Claims 1-2, 6-7, 14 and 18 under 35 U.S.C. 102(b) as being anticipated by US Patent No. 3,964,482 (hereinafter the '482 reference).

In the rejection the examiner indicates that channels for directing a drug from the openings to their corresponding projections are provided between the openings and their corresponding projections on the flat plate are disclosed on page 18, line 11, to page 20, line 4 of the '480 reference. The examiner also indicates that the hollow interior of the conical projections serve as channels for directing a drug from the opening to their corresponding projection (see Fig. 1 of the '482 reference).

However, it is respectfully submitted that there are no channels on the surface of the flat plate in either of the '480 or '482 references. Therefore, the inventions described in the '480 and '482 references do not have the advantages obtained with the invention called for in the claims herein, i.e. ,that the drug can be supplied almost evenly from each of the projections through the

skin into the body as described in the specification herein on page 12, lines 10 and 11.

In view of the amendments to claims 1 and 2, it is respectfully urged that the claims now in the application patentably distinguish from the '482 reference. Consequently, the examiner would be warranted in no longer maintaining the rejection. Withdrawal of the rejection is accordingly respectfully requested.

Reconsideration is respectfully requested of the rejection of Claims 1-6 and 8-17 under 35 U.S.C. 103(a) as being unpatentable over WO 2002032480.

The deficiencies of the '480 reference are discussed above in connection with the rejection under 35 U.S.C. 102(b).

In the rejection the examiner contends that the '480 reference on page 18, line 11, to page 20, line 4, discloses "Channels for directing a drug from the opening to their corresponding projections are provided between the openings and their corresponding projections on the flat plate". It is respectfully urged that the only channels disclosed in the referenced passage are the grooved channels 38 which are formed in the side walls 40 of the pyramidal microelement 32. These grooved channels connect with the openings 36 as shown in Fig. 4 of the '480 reference. It is clear from Fig. 4 that the openings are not spaced from the pyramidal microelement 32 but instead are positioned immediately adjacent and below the microelement 32 and the grooved channels 38. In contrast, the claims now in the application require that the openings are spaced from the conical or pyramidal projections and the channels are provided on the surface of the flat plate and not on the surface of the pyramidal projections.

The examiner apparently predicates this rejection on the theory of optimizing the

structure disclosed in the '480 reference. However, there is no disclosure in the '480 reference of channels being provided on the surface of the flat plate to facilitate the flow of drugs from the opening to the corresponding conical or pyramidal projection as discussed in the specification herein on page 12, lines 3-11.

It is therefore respectfully urged that there is no basis for concluding that one of ordinary skill in the art would arrive at the structure of the transdermal drug administration device now called for in the claims herein with the benefit of the '480 reference and a desire to optimize that structure.

Consequently, it is respectfully submitted that the examiner would be justified in no longer maintaining the rejection. Withdrawal of the rejection is accordingly respectfully requested.

Reconsideration is respectfully requested of the rejection of Claims 1-20 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 3,964,482.

The deficiencies of the '482 reference are discussed above.

It is respectfully submitted that the examiner's reading of the original claims on the '482 reference does not apply to the claims as currently amended as discussed above. With these amendments it is clear that the opening is spaced from the conical or pyramidal projections and that channels are provided between the openings and their corresponding projections to direct a drug from the opening to their corresponding projections. It is thus clear that the drug does not flow from a hollow interior of the conical projections. In addition, claim 1 now requires that the flat plate is formed from polyactic acid and that there is no disclosure in any of the references of

record of forming the flat plate from this material.

In view of the numerous differences between the references of record and the amended claims herein, it is respectfully submitted that the examiner would be justified in no longer maintaining the rejection. Withdrawal of the rejection is accordingly respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance, and early action and allowance thereof is accordingly respectfully requested. In the event there is any reason why the application cannot be allowed at the present time, it is respectfully requested that the Examiner contact the undersigned at the number listed below to resolve any problems.

Respectfully submitted,

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